

(19) World Intellectual Property Organization
 International Bureau



(43) International Publication Date
 10 July 2003 (10.07.2003)

PCT

(10) International Publication Number
WO 03/055544 A1

(51) International Patent Classification⁷: A61M 1/16, I-41010 Ganaceto, Modena (IT). ZACCARELLI, Massimo [IT/IT]; Via Ada Negri 37, I-41010 San Felice sul Panaro (IT). DE CICCO, Giorgio [IT/IT]; Via Madeglie d'oro 40, I-41100 Modena (IT). DELNEVO, Annalisa [IT/IT]; Via Cuneo, 13, I-42015 Correggio (IT).

(21) International Application Number: PCT/IB02/05572

(22) International Filing Date: 20 December 2002 (20.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: MI01A002828 28 December 2001 (28.12.2001) IT

(71) Applicant (for all designated States except US): GAM-BRO LUNDIA AB [SE/SE]; Magistratsvägen 16, S-226 43 Lund (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FONTANAZZI, Francesco [IT/IT]; Via Savoniero 7, I-41100 Modena (IT). PAOLINI, Francesco [IT/IT]; Strada Forghieri, 229,

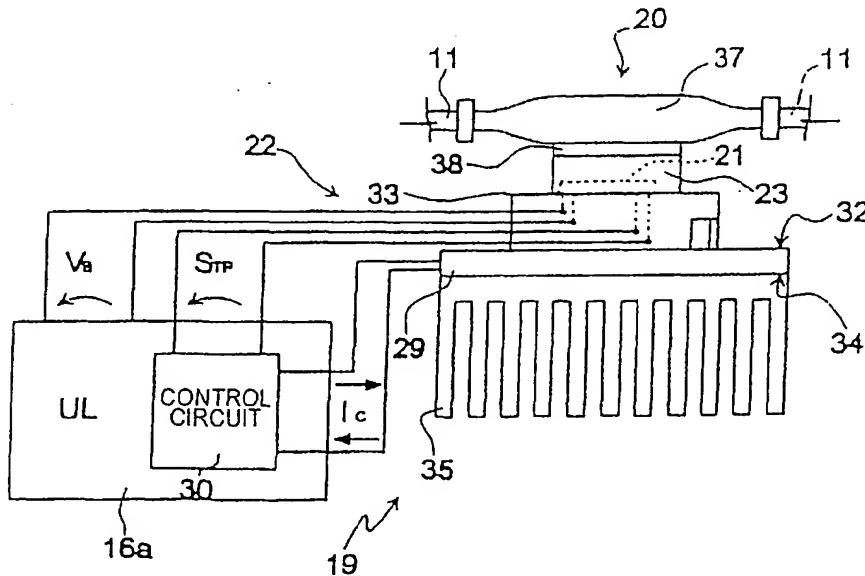
(74) Agent: SUTTO, Luca; Gambo Patent Department, 61, Avenue Tony Garnier, F-69007 Lyon (FR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK,

[Continued on next page]

(54) Title: NON-INVASIVE DEVICE FOR MEASURING BLOOD TEMPERATURE IN A CIRCUIT FOR THE EXTRACORPOREAL CIRCULATION OF BLOOD, AND EQUIPMENT PROVIDED WITH THIS DEVICE



WO 03/055544 A1

(57) Abstract: A non-invasive device (16) for measuring blood temperature in a circuit for the extracorporeal circulation of blood includes a line (20) in which blood taken from a patient flows (P), and a temperature sensor (19), connected to the said line (20) and provided with a device (21) for measuring the intensity of an electromagnetic radiation. The measuring device (21) faces a connecting portion or window (37) of the line (20) which is permeable by electromagnetic radiation in a first wave band (B_S), and generates a first signal (V_B), correlated with the electromagnetic radiation in the first band (B_S) and therefore, with the temperature of the blood flowing in the line (20).